

CLINICAL STUDY REPORT

Human Co., Ltd. Skin Clinical Trial Center



Product : [PLLACUBE]

Report No : HM-240723-IR-0022-40

Report date : 07th August 2024

TEST REPORT CERTIFICATION

Certification Code: HM-240723-IR-0022-CD-40 Receipt Date: 10th July 2024

Client: LABINCUBE Test Completion Date: 25th July 2024

Representative: Kyungmin Choi

Address: 58-6, Mullaebuk-ro, Yeongdeungpo-gu, Seoul, Republic of Korea

Product: PLLACUBE

Test Result			
Test Item	Inspection Standard	Result	Irritation Evaluation
Suitability test for sensitive skin using primary irritation	*Remark	0.00	No irritation (Excellent)
Test Methods: After wiping the subject's test area with 70% ethanol and drying it, load of the test product in Finn Chamber® and attach it on the skin for 24 hours. The dermatologist assessed whether skin irritation was present at 30 minutes and 24 hours after patch removal.			

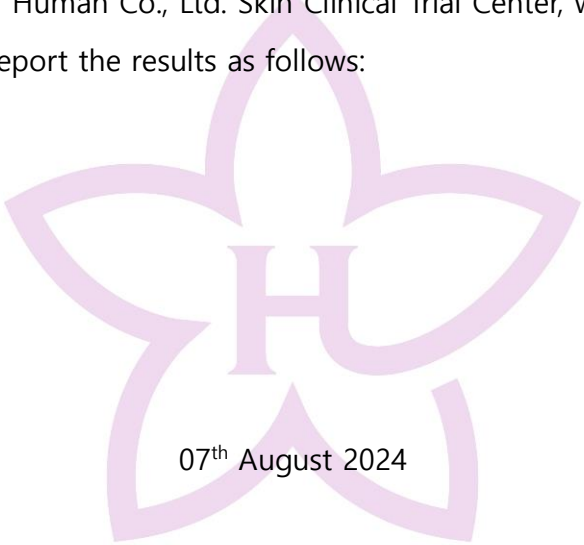
Skin Irritation Index	Irritation Evaluation
0.00 ~ 0.25	No irritation (Excellent)
0.26 ~ 1.00	Mild irritation (Good)
1.01 ~ 2.50	Medium irritation (Bad)
2.51 ~ 4.00	Strong irritation (Very Bad)

Authentication

Title	Primary irritation human application test using a skin patch on sensitive skin of [PLLACUBE]
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The Human Co., Ltd. Skin Clinical Trial Center has unequivocally performed "Primary irritation human application test using a skin patch on sensitive skin" as requested by [LABINCUBE].

The study was conducted in compliance with the regulations of GCP (Good Clinical Practice) guideline, MFDS (Ministry of Food and Drug Safety), and with Standard Operation Procedure (SOP) of the Human Co., Ltd. Skin Clinical Trial Center, we faithfully carried out the clinical study and report the results as follows:



Institute **Human Co., Ltd. Skin Clinical Trial Center**

President

Huijeong Jeong (Signature) 

Study Director **Human Co., Ltd. Skin Clinical Trial Center**

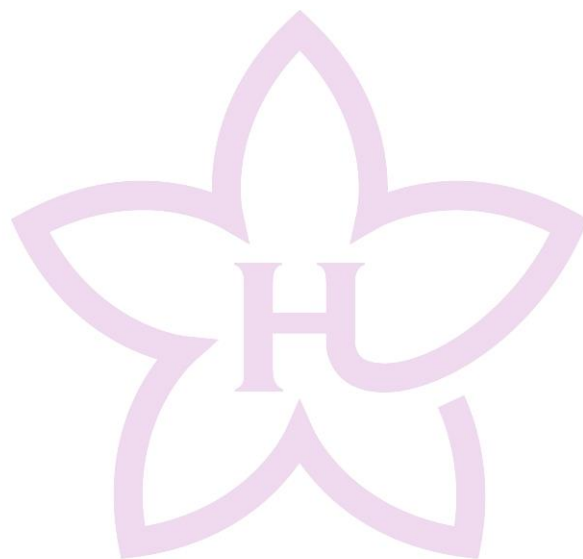
Dermatologist

Wonkyu Hong (Signature) 

Content

TEST REPORT CERTIFICATION.....	2
Authentication.....	3
Content.....	4
Information of the study request	6
Reliability assurance.....	7
Summary of the results.....	9
1. Subjects.....	11
1.1.Inclusion criteria.....	11
1.2.Exclusion criteria	11
1.3.Number of subjects	12
1.4.Criteria for premature withdrawal and dropout from the study.....	12
1.5.Maintenance of confidential information and duty of good fait.....	13
2. Materials to conduct the study.....	13
1) Finn Chamber® on Scanpor® (SmartPractice®, U.S.A.)	13
2) Microman M100 (Gilson, France).....	13
3) Micropore tape (3M/ Medical-Surgical Division).....	13
4) Marking pen (Skin marker Slim, Sweden)	13
3. Methodology.....	14
3.1. Test method and test site	14
3.2. Evaluation procedure.....	14
3.3. Determination of irritation	15
3.4. Evaluation of skin adverse event	16
4. Results	17
4.1. Results of skin primary irritation test.....	17
4.2. Evaluation result of skin adverse event	17

5. Conclusion	18
6. References	19
7. Appendix	20
Appendix 1.Subjects' information.....	20
Appendix 2.Ingredients of the investigational products	22
Appendix 3.Data of patch test result data.....	23
Facilities and faculty involved in the study.....	25
Researcher CV	26
List of scientific publications.....	36



Information of the study request

Title	Primary irritation human application test using a skin patch on sensitive skin of [PLLACUBE]	
Report No	HM-240723-IR-0022-40	
Study period	From 23 th July 2024 to 25 th July 2024	
Report date	07 th August 2024	
Institute	Name	Human Co., Ltd. Skin Clinical Trial Center
	Address	1005~1008, 24, Gasan digital 1-ro, Geumcheon-gu, Seoul, Republic of Korea
	President	Huijeong Jeong
	Study director	Wonkyu Hong / Dermatologist
	Researcher in charge	Jisoo kim / Chief Researcher
	Tel.	+82-2-6959-9216
	e-mail	kjs@humantest.co.kr
Sponsor	Name	LABINCUBE
	Address	58-6, Mullaebuk-ro, Yeongdeungpo-gu, Seoul, Republic of Korea
	President	Kyungmin Choi
	Monitor	Jonghwa Yu
	Tel.	+82-10-4602-1011
	e-mail	roid1011yj@labincube.com

Reliability assurance

Title	Primary irritation human application test using a skin patch on sensitive skin of [PLLACUBE]
Report No	HM-240723-IR-0022-40
Study period	From 23 th July 2024 to 25 th July 2024

This study was conducted under the experimental protocol in consulted with the sponsor, in compliance with the regulations of GCP (Good Clinical Practice) guideline, MFDS (Ministry of Food and Drug Safety), and with Standard Operation Procedure (SOP) of the Human Co., Ltd. Skin Clinical Trial Center.

In addition, it is confirmed that this report was reviewed and found that it accurately reflected the results obtained during the study by a quality assurance.

1. Following basic documentations stored? (Select all that apply)

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Experimental protocol | <input checked="" type="checkbox"/> Contract | <input checked="" type="checkbox"/> Informed consent Form (ICF) |
| <input checked="" type="checkbox"/> Case Report Form (CRF) | <input checked="" type="checkbox"/> Researcher resume | <input checked="" type="checkbox"/> Explanation for subject |
| <input type="checkbox"/> Code Breaking procedure | <input checked="" type="checkbox"/> Subject compensation regulation | <input type="checkbox"/> Reports of serious adverse event |

2. The number of subjects

Division	The number of subjects
Planned	>30
Enrolled	33
Dropped	0
Completed	33

3. Did the study proceed according to the study protocol?

☒ Yes ☐ No

4. Did the study proceed according to the Standard Operation Procedure (SOP)?

☒ Yes ☐ No

5. Did all subjects sign and date their handwritten consent to participate in the approved study?

☒ Yes ☐ No

(If receiving consent from a substitute: ☐ Yes ☐ No, reason: _____)

6. Had there been any Adverse Event occurrence, severity, or specific changes to note?

(If yes, attach and submit)

☐ Yes ☒ No

7. Was the following subject's information filled in the Case Report Form (CRF) (Multiple choices)?

☒ Subject initial ☒ Date of birth ☒ Subject gender ☒ Subject age

8. Were the various documents related to the clinical study stored in a separate safe place?

☒ Yes ☐ No

07th August 2024

Study Director **Wonkyu Hong** (Signature)

Quality Assurance **Hongsuk Kim** (Signature)

Summary of the results

Title	Primary irritation human application test using a skin patch on sensitive skin of [PLLACUBE]		
Institute	Human Co., Ltd. Skin Clinical Trial Center		
Report No	HM-240723-IR-0022-40		
Study period	From 23 th July 2024 to 25 th July 2024		
Report date	07 th August 2024		
Objective	To evaluate the safety in terms of primary skin irritation on humans of [PLLACUBE] in subjects with sensitive skin.		
Investigational product	No.*	Name of the product	Formulation
	D-10	PLLACUBE	Powder
	Concentration		
	As is		
	<i>*Location on the application of the product</i>		
Methods	<p>1. Test Subjects : 30 or more people of healthy male and female adults over the age 19 years old with sensitive skin who met all inclusion and exclusion criteria.</p> <p>2. Evaluation methods : 24 hours single patch test, as modified by Frosch & Kligman (1979), CTFA guideline (2007) and Draize.</p> <ul style="list-style-type: none"> ➤ Test area: on the back ➤ Patch duration: 24 hours occlusive patch ➤ Evaluation point: 30 minutes after removing the patch, 24 hours after removing the patch ➤ Reading and interpretation: Frosch & Kligman (1979) and CTFA guideline (2007), Draize method were applied. The test results were evaluated 24 hours after removing the patches. The assessment of skin reactions was carried out 30 minutes and 24 hours after the patch removal. The mean skin reaction rate is 		

	calculated after each assessment and analyzed to determine the degree of irritation.										
Results	1. Test Subjects : 33 healthy Korean male and female adults with sensitive skin were enlisted and subjected to a latic acid sting test for selection. The test was completed by all test subjects and the result analysis included the final 33 test subjects.										
	In the result analysis, the average age of subjects included was 57.06 years old, with the oldest age being 69 years old and the youngest age being 34 years old.										
	2. Results of skin primary irritation test on human										
	<table><tr><th>No.*</th><th>Name of the product</th><th>Skin Irritation Index</th><th>Irritation Evaluation</th></tr><tr><td>D-10</td><td>PLLACUBE</td><td>0.00</td><td>No irritation (Excellent)</td></tr></table>				No.*	Name of the product	Skin Irritation Index	Irritation Evaluation	D-10	PLLACUBE	0.00
No.*	Name of the product	Skin Irritation Index	Irritation Evaluation								
D-10	PLLACUBE	0.00	No irritation (Excellent)								
	<i>*Location on the application of the product</i>										
Conclusion	As result of primary skin irritation test on sensitive skin, the [PLLACUBE] requested by [LABINCUBE] is considered a non-irritating product.										

1. Subjects

1.1. Inclusion criteria

- Male and female adults over the age 19 years old
- Subject who has sensitive and hypersensitive skin
- Subjects who have signed consent form voluntarily after being sufficiently informed regarding the objectives of study and all related contents
- Subjects who are healthy without acute and chronic diseases including skin disorders
- Subjects who can be observed and traced throughout the entire study period

1.2. Exclusion criteria

- Subjects who is pregnant or breast-feeding
- Subject who has psychiatric disease and infectious skin disease
- Subject who has chronic disease such as asthma, diabetes, high blood pressure, etc.
- Subject who has skin lesion on the test site such as moles, pimples, erythema, scalds (burns), hemotelangiosis, and scars
- Subject who has used skin ointment containing steroid on the test site for more than one month
- Subject who has irritation history or allergy to adhesive tape
- Subject who has been part of the same clinical trial within the past 3 months
- Subject who is on contraceptive, anti-histamine and anti-inflammatory prescriptions
- Subject who has cosmetics or sunlight allergies
- Employee in this clinical trial center
- Anyone who is considered non-qualified by the investigator

1.3. Number of subjects

This study was conducted in compliance with the "Regulations on Functional Cosmetic Examination [Annex 1] Toxicity Test Method Section 7 (1) Human patch test method" by the MFDS (Ministry of Food and Drug Safety).

The results were calculated by obtaining the valid data from a minimum of 30 subjects.

1.4. Criteria for premature withdrawal and dropout from the study

The subjects who participating in this study can withdraw from the clinical trial any time, and the investigator can eliminate subjects from this test and exclude the data on the subject from the test result evaluation in the event of occurrence of one or more of the following reasons. When a subject is withdrawn, the investigator shall specify the corresponding reason and records other relevant matters to report to the principal investigator.

- (1) Voluntary withdrawal by the subject
- (2) Violation of the protocol
- (3) Occurrence of adverse event or seriously adverse event on the test site of a subject
- (4) Failure to follow up on the subject
- (5) Others

1.5. Maintenance of confidential information and duty of good faith

- (1) Confidentiality of personal information of subjects participating in the clinical trial will be maintained. However, the test data can be used for medical, academic research or marketing purposes within the scope of not disclosing the identity of the subject.
- (2) The subjects maintained confidentiality of information obtained through the clinical trial until the end of the test.
- (3) Subjects participating in the clinical trial filled out the documents related to the clinical trial sincerely and frankly.

2. Materials to conduct the study

- 1) Finn Chamber® on Scanpor® (SmartPractice®, U.S.A.)
- 2) Microman M100 (Gilson, France)
- 3) Micropore tape (3M/ Medical-Surgical Division)
- 4) Marking pen (Skin marker Slim, Sweden)

3. Methodology

This study was conducted in a temperature and humidity controlled area (indoor temperature $22\pm 2^{\circ}\text{C}$, humidity $50\pm 5\%$) within the HUMAN Co., Ltd. Skin Clinical Trial Center.

3.1. Test method and test site

Test site was located on the flat area of the subject's back, avoiding the spine area and any area with skin discoloration or any lesion. The test was performed on 33 healthy female adult subjects over the age of 19 with sensitive skin. $20\mu\text{l}$ of the coated test products and diluted test products was inserted, and the attached test product was fixed to the test area for 24 hours with adhesive tape as it was cut and attached to 1cm in width and length in Finn chamber. The skin reaction was assessed 30 minutes and 24 hours after removing the patch.

3.2. Evaluation procedure

Table 1. Evaluation procedure

Actions	Day 1	Day 2	Day 3
Admission of the subjects by the investigator	√	-	-
Perform a lactic acid sting test	√	-	-
Application of the investigational product and giving the subjects constraints of the study	√	-	-
Remove the patch	-	√	-
Observation of test site after 30 min of the patch removal	-	√	-
Observation of test site after 24 hrs of the patch removal	-	-	√

3.3. Determination of irritation

Using a micropipette, 50 µl of a 5% aqueous solution of lactic acid was applied to the nasolabial fold and cheek areas on one side of the facial area. While the other side of nasolabial fold and cheek areas were treated with distilled water. Subjects rated their degree of irritation on a 4-point scale for stinging, burning, itching, and eye irritation every 1 minute for 10 consecutive sets of 9 minutes. "5% lactic acid test" was conducted three times and subjects those of who have a score of 0.4 or higher on two or more occasions were selected for the test.

The index of skin irritation was calculated based on guidelines proposed by Frosch & Kligman and CTFA guidelines (2007), and then the degree of skin irritation of the test product was evaluated using the skin irritation index of the Draize method (Table 2, 3, Fig 1).

Table 2. Skin Irritation Evaluation Criteria

Mark	Grade	Description
-	0	No reaction
+	1	Slight erythema, either spotty or diffuse
++	2	Moderate uniform erythema
+++	3	Intense erythema with edema
++++	4	Intense erythema with edema & vesicles

Fig 1. Skin Irritation Index Formula

Skin Irritation Index

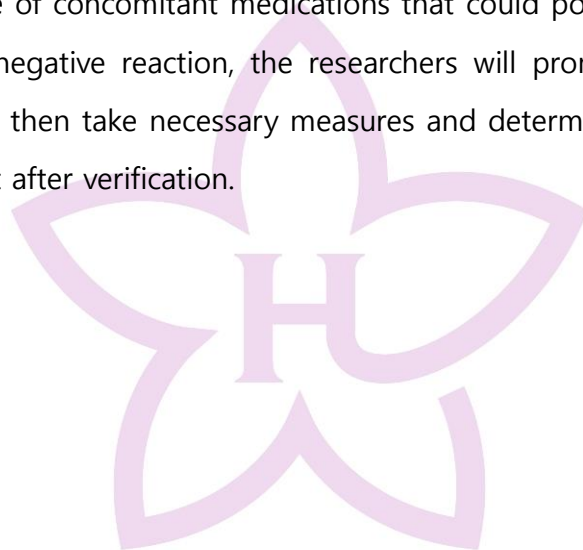
$$= \frac{\left[\left(\frac{\sum_{i=1}^n \text{Evaluation Value}}{n(\text{Number of Test Subjects})} \right) 30\text{min} + \left(\frac{\sum_{i=1}^n \text{Evaluation Value}}{n(\text{Number of Test Subjects})} \right) 24\text{hrs} \right]}{m(\text{Number of times evaluated})}$$

Table 3. Result Determination Table of Skin Patch Test

Primary Irritation Index	Irritation Evaluation
0.00 ~ 0.25	No irritation (Excellent)
0.26 ~ 1.00	Mild irritation (Good)
1.01 ~ 2.50	Medium irritation (Bad)
2.51 ~ 4.00	Strong irritation (Very Bad)

3.4. Evaluation of skin adverse event

The researchers monitored for any adverse skin reactions during the test period and reviewed the use of concomitant medications that could possibly affect the test. In the event of a negative reaction, the researchers will promptly inform the study director who will then take necessary measures and determine whether to proceed with involvement after verification.



4. Results

4.1. Results of skin primary irritation test

Dermatologist conducted a visual evaluation 30 minutes and 24 hours after removing the patch. As a result, the investigational product [PLLACUBE] was classified as non-irritating (Excellent) range for human skin primary irritation on sensitive skin (Table 4).

Table 4. Results of skin primary irritation test

No.*	Name of the product	30 min†				24 hrs‡				Skin Irritation Index	Irritation Evaluation
		1	2	3	4	1	2	3	4		
D-10	PLLACUBE	-	-	-	-	-	-	-	-	0.00	No irritation (Excellent)

*Location on the application of the product

†30 min after removal of the patch

‡24 hours after removal of the patch

4.2. Evaluation result of skin adverse event

No adverse reactions or observed concomitant medication use were reported or observed during the study period.

5. Conclusion

Primary irritation human application test using a skin patch on sensitive skin of [PLLACUBE] requested by [LABINCUBE] by measuring the irritation index on the human skin.

33 adult male and female test subjects over the age of 19 with sensitive skin were selected for the test. The test product was applied Finn chamber and fixed to the test area for 24 hours with adhesive tape on a flat area of the back, excluding the spine, with no discoloration or skin damage.

Skin reactions were observed 30 minutes and 24 hours after removing the patch. The presence and degree of skin irritation were visually evaluated by dermatologist according to the evaluation criteria.

[PLLACUBE] requested by [LABINCUBE] was applied for 24 hours and the visual evaluation of the skin reaction after 30 minutes and 24 hours after removing the patch was evaluated. [PLLACUBE] is considered a non-irritating product in terms of primary of sensitive skin irritation.

6. References

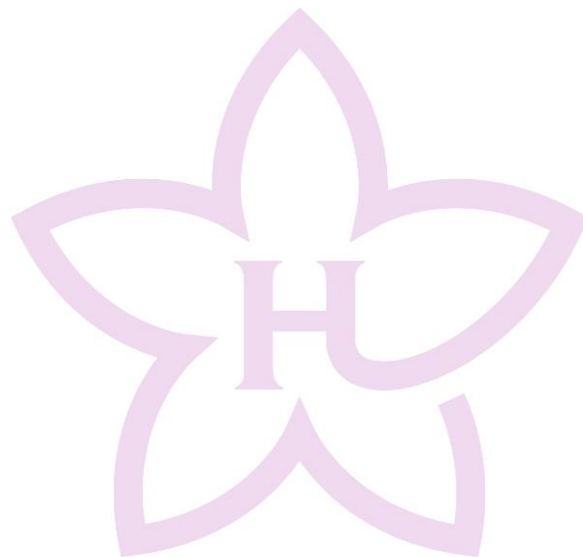
- 1) Guidelines for test methods for demonstrating cosmetic mark advertising, Ministry of Food and Drug Safety. 2014.
- 2) Guidelines for cosmetic clinical and efficacy examination, Ministry of Food and Drug Safety. 2012.
- 3) Basketter DA, Chamnerlain M, Griffiths HA, Rowson M, Whittle E, York M. The classification of skin irritants by human patch test. Food Chem Toxicol. 1997;37(8): 845-52.
- 4) CTFA Safety Testing Guideline: The Cosmetic, Toiletry and Fragrance Association, Inc. Washington, D.C. 1981:20005.
- 5) CTFA Safety Testing Guideline: The Cosmetic, Toiletry and Fragrance Association, Inc. Washington, D.C. 1991:20036.
- 6) Devos SA, Van Der Valk PG. Epicutaneous patch testing. Eur J Dermatol. 2002;12(5): 506-13.
- 7) Draize J.H., Woodard G., Calvery H.O. Methods for the study of irritation and toxicity of substances applied topically to the skin and mucous membranes. J. Pharm. Exp. Ther. 1994;82:377-390.
- 8) Draize J.H. Dermal Toxicity Appraisal of the Safety of Chemicals in Foods, Drugs and Cosmetics, Association of Food and Drug Officials of the United States, Austin, Tex, USA. 1959.
- 9) Electrical impedance applied to non-invasive detection of irritation in skin. Contact dermatitis. 1992;27:37-42.
- 10) Fischer T, Maibach H. Finn chamber patch test technique. Contact dermatitis. 1984: 11(3):137-140.
- 11) Frosch P. J. & Kligman A.M. The soap chamber; a new method for assessing the irritancy. J. Invest. Dermatol. 1979;40:11-14.

7. Appendix

Appendix 1. Subjects' information

Control No.	Initial	Age	Gender
01	KJA	58	F
02	LJS	46	F
03	JYO	64	F
04	KHH	59	F
05	KCG	69	F
06	LJN	67	F
07	HKH	67	F
08	KYR	65	F
09	BJR	60	F
10	KEH	62	F
11	KJS	49	F
12	KYS	63	F
13	LYR	61	F
14	YMY	66	F
15	LCB	63	F
16	YIK	34	F
17	LML	60	F
18	SMH	62	F
19	LDH	55	F
20	LSM	49	F
21	NJY	48	F
22	LSJ	68	F
23	PSH	62	F
24	PHJ	47	F
25	LNS	64	F
26	KMS	37	M

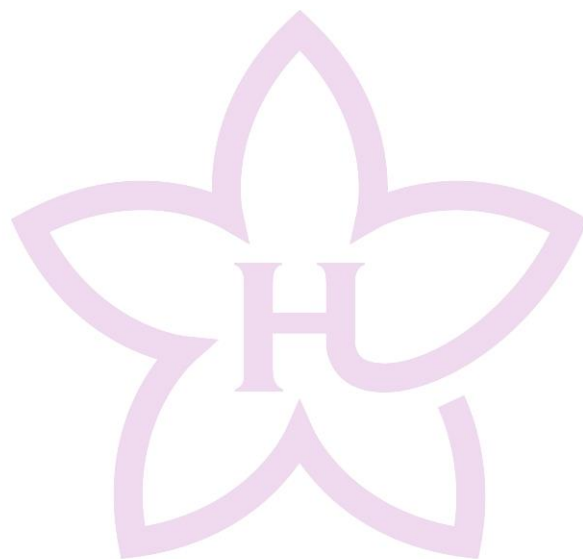
27	KKS	48	F
28	KYK	49	F
29	SJS	51	M
30	PYY	67	F
31	KSH	49	F
32	KYS	63	F
33	JHA	51	F



Appendix 2. Ingredients of the investigational products

[PLLACUBE]

Cellulose Gum, Sodium Chloride, Polylactic Acid, Sodium Hyaluronate, Cyclodextrin, Sodium DNA, Disodium Phosphate, Ethyl Ascorhyl Ether, Sodium Phosphate, Glycerin, Glutathione, 1,2-hexanediol, Houttuynia cordata Extract

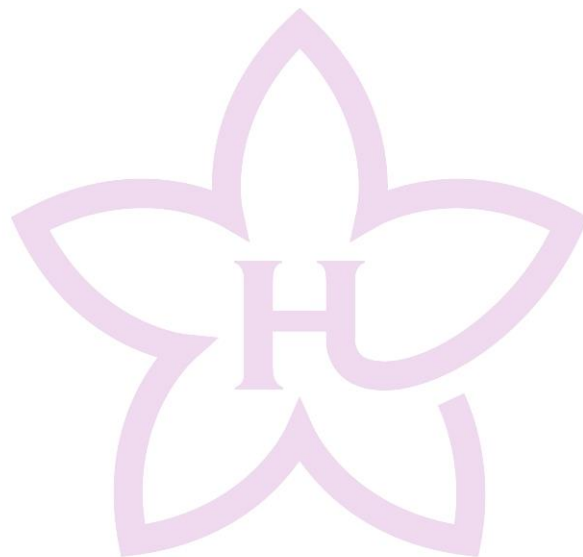


Appendix 3. Data of patch test result data

Control No.	PLLACUBE	
	30 minutes after removal	24 hours after removal
01	0	0
02	0	0
03	0	0
04	0	0
05	0	0
06	0	0
07	0	0
08	0	0
09	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0
25	0	0
26	0	0

27	0	0
28	0	0
29	0	0
30	0	0
31	0	0
32	0	0
33	0	0

**0-No reaction, 1-Slight erythema, either spotty or diffuse, 2-Moderate uniform erythema, 3-Intense erythema with edema, 4-Intense erythema with edema & vesicles*



Facilities and faculty involved in the study

■ Institute		
Name	Human Co., Ltd. Skin Clinical Trial Center	
Address	1005~1008, 24, Gasan digital 1-ro, Geumcheon-gu, Seoul, Republic of Korea	
President	Huijeong Jeong	
Study director	Wonkyu Hong / Dermatologist	
Tel.	+82-70-5222-9663	FAX +82-70-7500-9650
e-mail	cosmetic0206@naver.com	
■ Purpose of establishment of test agency		
This institution was established to evaluate the safety, effectiveness, and functionality of test product by performing clinical study, providing results of related tests as well as technical information.		
■ Clinical study items		
Cosmetics safety evaluation and research	Functional cosmetics evaluation and research	
Cosmetics efficacy evaluation and research	Quasi-drugs evaluation and research	
Skin related product evaluation and research	Functional food evaluation and research	
■ Facilities		
A thermo-hygrostat	VECTRA XT	Mark-Vu
F-ray	DSLR (Cannon EOS 80D)	Antera 3D
DUB® SkinScanner	Epsilon E100	Electronic scale
Cutometer® dual MPA 580	Corneometer® CM825	Sebumeter® SM815
Tewameter TM300	VISIA-7	PRIMOS CR
Moisturemeter D	Vapometer	SkinGlossmeter
SkinColorCatch	Skin pH meter	FLIR E75
Kong Camera	Dino-Lite Digital Microscope	Folliscope
Fine dust injection system	Infrared Moisture Analyzer	Bathtub
Infrared Sauna System	IR lamp	Black D-Squame
Static meters	Ballistometer	Clean bench
Incubator	Auto clave	Water Purification System
DERMAVISION Beaty Edition	MulteTest-dV	-

Researcher CV

■ Director of the agency

Huijeong Jeong / CEO

Education	2002 ~ 2004	Graduated from Department of Environmental Engineering, Konkuk University, bachelor of engineering
Career	2018 ~ 2020	Head of Skin Clinical Trial Center, OATC Co., Ltd.
	2020 ~ present	CEO of Human Skin Clinical Trial Center
		Reliability review of whitening function evaluation using transparent film mapping
		Patent registration for blue light blocking test device [10-2346709]
		Patent registration of anti-dust performance test device and method [10-2019883]
		Patent application for portable cosmetic container [10-2019-0052712]
		Patent application for cosmetics sterilizer [10-2019-0080854]
		Patent application for cosmetic container with temperature control [10-2019-0084935]
		Patent application for skin heavy metal measuring device [10-2019-0168852]
		Patent application for skin type analysis and patent application for customized cosmetics preparation device [10-2020-0068940]

■ Test manager

Wonkyu Hong/ Dermatologist

Education	2004	Graduated from Inha University School of Medicine, Bachelor of Medicine
	2004 ~ 2005	Intern of Inha University Hospital
	2005 ~ 2009	Resident of Inha University Hospital
	2007	Graduated from Inha University School of Medicine, Master of Medicine
Career	2004	Acquired Doctor's License (License number: 83931)
	2009	Acquired dermatologist (License number: 1771)
	2009 ~ 2012	Associate Chairman of Hansen Welfare Association Jeonbuk Branch
	2013 ~ 2015	Representative Director of Pyeongtaek Human Dermatology
	2013 ~ present	Adjunct Professor of Dermatology Class, Inha University
	2016	Representative Director of Cheongna Human Dermatology
	2018	Research Director of Human Cosmetic

	2018	Adjunct Professor of International St. Mary's Hospital
	2018 ~ 2020	Research Director of Skin Clinical Trial Center, OATC Co., Ltd.
	2020 ~ present	Research Director of Human Skin Clinical Trial Center
Society activities		Regular member of Korean Society of Dermatology
		Regular member of the Korean Society for Acne Research
		Regular member of Korean Hair Research Society
		Regular member of Association of Korean Dermatologists
	2018 ~ present	Intelligence member of Association of Korean Dermatologists
	2018 ~ present	Planning policy member of Association of Korean Dermatologists

■ Reliability assurance officer

Hongsuk Kim / Dermatologist

Education	2001	Graduated from Dong-A University College of Medicine, Bachelor of Medicine
	2001 ~ 2002	Intern of Dong-A University Hospital
	2002 ~ 2006	Resident of Dong-A University Hospital
	2004	Master of Dermatology, Dong-A University College of Medicine, Master of Medicine
Career	2001	Acquired Doctor's License(License number: 72561)
	2006	Acquired dermatologist (License number: 1629)
	2006 ~ 2009	Manager, Jeju Special Self-Governing Province Branch, Korea Hansen Welfare Association
	2010 ~ 2011	Manager of Nohyung Beautiful Dermatology
	2011 ~ 2012	Representative Manager of Dermatology, Seoul Clinic
	2014 ~ present	Adjunct Professor of Dermatology Class, Dong-A University,
	2012 ~ present	Representative director of Wine Dermatology Plastic Surgery
	2015 ~ present	Clinical Instructor of Department of Medical Beauty, Chungcheong University
	2016 ~ present	Clinical Instructor of Cosmetics Consulting Professional Association
	2020 ~ present	Human Skin Clinical Trial Center Reliability assurance officer

Society activities

Publication director of the Korean Society for Anti-aging Dermatology

Director of the Korean Society for Skin Type Research

Director of the Korean Society of Cosmetics and Cosmetology

Regular member of Korean Society of Dermatology

Regular member of Korean Society of Dermatology Surgery

Regular member of Korean Medical Society for Cosmetics

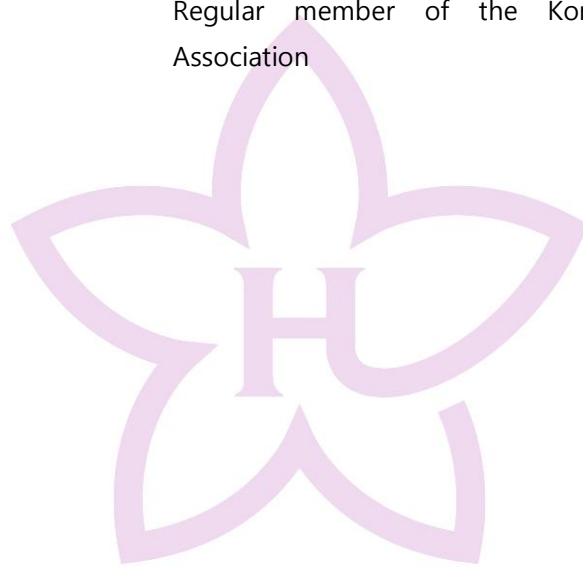
Regular member of Korean Laser Society

Regular member of the Korean Society for Psoriasis

Regular member of the Korean Society for Acne Research

Regular member of Korean Society of Vitiligo

Regular member of the Korean Atopic Dermatitis Association



■ Researchers

Hyoungsoon Hwang / Clinical Trial Division Head

Education	2000 ~ 2006	Yonsei University, Biological sciences, Bachelor of Science
Career	2007 ~ 2014	Researcher / DERMAPRO Ltd
	2014 ~ 2020	Senior researcher / GFC Life Science, KDRI
	2020 ~ 2022	Senior researcher / KSRC Korean Skin Research Center
	2023 ~ present	Human Skin Clinical Trial Center, Clinical Trial Division Head

Soyeon Kim / Senior Researcher

Education	2013 ~ 2015	Shin Ansan University, Department of Food and Life Sciences
Career	2015 ~ 2021	DERMAPRO Ltd. Researcher
	2021 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Senior Researcher

Minhwa Lee / Senior Researcher

Education	2013 ~ 2017	Dongguk University, Department of Biotechnology, Bachelor of Science
Career	2018 ~ 2021	Korea Institute of Dermatological Sciences, Researcher
	2021 ~ present	Human Ethic Skin Clinical Trial Center, Clinical Trial Team, Senior Researcher

Eunseok Lee / Senior Researcher

Education	2009 ~ 2011	Shin Ansan University
	2018	Academic Creditbank System, business administration
Career	2011 ~ 2021	Dermapro Skin Research Center, Chief researcher
	2021 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Chief researcher

Sujin Jung / Chief researcher

Education	2021 ~ 2023	Konkuk University, Beauty Cosmetics, Bachelor of Science
Career	2016 ~ 2020	P&K Skin Research Center, Research
	2020 ~ 2021	Koreatech KEMA academy center, Senior Researcher
	2024 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Senior Researcher

Suyeong Kim / Chief researcher

Education	2013	Jeju National University Graduate School, Department of Chemistry, Master of Sciences
Career	2014 ~ 2022	Ami cosmetic, Research Engineer
	2022 ~ 2022	Chief researcher / KSRC Korean Skin Research Center
	2023 ~ present	Human Skin Clinical Trial Center, Chief researcher

Jisoo Kim / Chief researcher

Education	2014 ~ 2018	Hoseo University, Cosmetic Science, Bachelor of Science
Career	2018 ~ 2020	KC Skin Research Center, Researcher
	2020 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Chief researcher

Heejin Lim / Chief researcher

Education	2017 ~ 2021	Kyungsung University, chemistry department, Bachelor of Science
Career	2021 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Chief researcher

Eunyoung Kang / Researcher

Education	2020	Dong-A University Graduate School, Department of Chemical Engineering, Advanced Chemical Engineering, Bachelor of Engineering
Career	2021~ 2022	Researcher / KSRC Korean Skin Research Center
	2023 ~ present	Human Skin Clinical Trial Center, Researcher

Gahyeon Kim / Researcher

Education	2018 ~ 2022	Bucheon University, Department of Beauty Care
Career	2022 ~ 2023	OATC Skin Clinical Test Center, Researcher
	2023 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Researcher

Dahyeon Kim / Researcher

Education	2018 ~ 2022	Bucheon University, Department of Beauty Care
Career	2022 ~ 2023	OATC Skin Clinical Test Center, Researcher
	2023 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Researcher

Suji Lee / Researcher

Education	2018 ~ 2020	Shin Ansan University, Department of Food and Life Sciences
Career	2020 ~ 2023	COREDERM Inc, Skin Research Center, Researcher
	2024 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Researcher

Jin Kim / Researcher

Education	2020 ~ 2024	U1 University, Department of beauty Care Engineering
	2024 ~ present	Konkuk University Graduate School of Industry Major in Cosmetology
Career	2023 ~ 2024	Korea Institute of Dermatological Sciences, Researcher
	2024 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Researcher

Yesol Lee / Researcher

Education	2015 ~ 2017	Jaeneung University, Department of Cosmetics Science
Career	2024 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Researcher

Geanah Ko / Researcher

Education	2019 ~ present	Seowon University, Department of Biocosmetics
Career	2024 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Researcher

Jiyu Kim / Researcher

Education	2020 ~ 2022	Jaeneung University, Department of Cosmetics Science
Career	2024 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Researcher

Eunjeong Kwon / Researcher

Education	2008 ~ 2010	Keimyung College University, Department of Beauty Coordination
Career	2024 ~ present	Human Skin Clinical Trial Center, Clinical Trial Team, Researcher

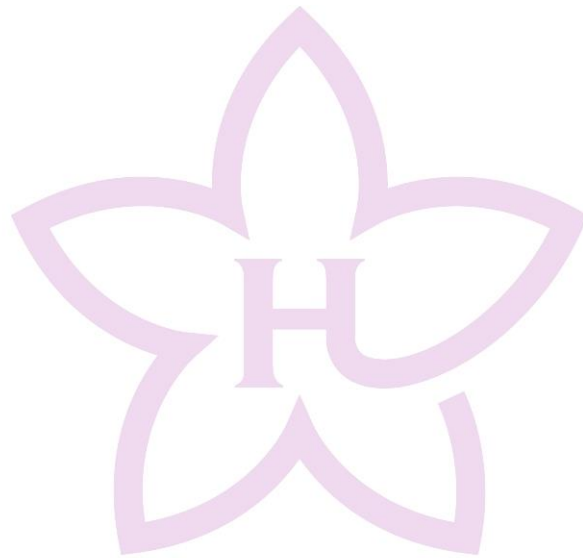
Hyein Kim / Researcher

Education 2015 ~ 2019

Daegu University, Department of Food Engineering

Career 2024 ~ present

Human Skin Clinical Trial Center, Clinical Trial Team,
Researcher



Yejin Kim / Senior Researcher

Education	2013 ~ 2017	Seowon University Graduate School of Industry of Cosmetics Engineering
	2018 ~ 2022	Seowon University, Bachelor of Science in Department of Cosmetics Engineering
Career	2016 ~ 2020	P&K Skin Research Center, Assistant Research Engineer
	2020 ~ 2022	Seowon Skin Research Center, Senior Researcher
	2022 ~ 2023	AllLive Clinical trial Research Center, Senior Researcher
	2023 ~ present	Human Ethic Skin Clinical Trial Center, Clinical Trial Team, Senior Researcher

Youngseo Kim / Researcher

Education	2016 ~ 2020	Jungwon University, Department of Medical Beauty Care
Career	2021 ~ 2022	Korea Institute of Dermatological Sciences, Researcher
	2023 ~ present	Human Ethic Skin Clinical Trial Center, Clinical Trial Team, Researcher

Sumin Lee / Researcher

Education	2021 ~ 2023	Konkuk University Future Knowledge Education Center, of K-Department beauty Industrial Convergence, Bachelor of Science
Career	2022 ~ present	Human Ethic Skin Clinical Trial Center, Clinical Trial Team, Researcher

Minjeong Seo / Researcher

Education	2019 ~ 2023	Eulji University, Department of Beauty and Cosmetic Science
Career	2022 ~ present	Human Ethic Skin Clinical Trial Center, Clinical Trial Team, Researcher

Kyungeun Kim / Researcher

Education	2019~2020	Osan Univerity, Beauty and Cosmetics Affiliation Department of Skin and Cosmetics
	2021 ~ 2023	Mokwon Univerity, Department of Cosmetics Engineering, Bachelor of Science
Career	2022 ~ present	Human Ethic Skin Clinical Trial Center, Clinical Trial Team, Researcher

Jieun Kim / Researcher

Education	2018 ~ 2022	Mokwon University, Department of Cosmetics Engineering
Career	2022 ~ present	Human Ethic Skin Clinical Trial Center, Clinical Trial Team, Researcher

Hajeong Nam / Researcher

Education	2013 ~ 2016	Shinsung University, Department of Hotel Cooking associate degree
	2022 ~ present	Konkuk University Future Knowledge Education Center, Department of K-beauty Industrial Convergence, Bachelor of Science
Career	2022 ~ present	Human Ethic Skin Clinical Trial Center, Clinical Trial Team, Researcher

Dahyeon Kim / Researcher

Education	2016 ~2020	Konyang University, Department of Medical Beauty
Career	2021 ~ 2022	Dermacosmetic Clinical Trial Center, Clinical Trial Team, Researcher
	2023 ~ present	Human Ethic Skin Clinical Trial Center, Clinical Trial Team, Researcher

Sieun Lee / Researcher

Education	2019 ~ 2023	Gwangju Women's University, Department of Cosmetics Science
Career	2023 ~ present	Human Ethic Skin Clinical Trial Center, Clinical Trial Team, Researcher

HyeonJi Lee / Researcher

Education 2020 ~ 2024

Daejeon University, Department of Beauty Design

Career 2024 ~ present

Human Ethic Skin Clinical Trial Center, Clinical Trial Team,
Researcher

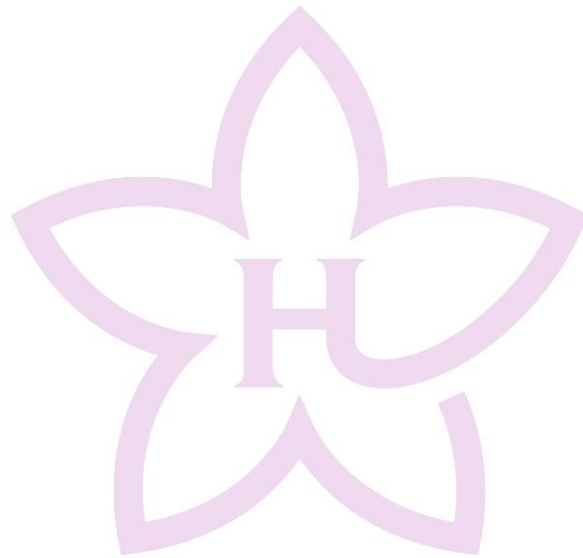
Semin Choi / Researcher

Education 2018 ~ 2022

Dona-A University, Department of Chemistry

Career 2024 ~ present

Human Ethic Skin Clinical Trial Center, Clinical Trial Team,
Researcher



List of scientific publications

■ Study Director

No.	Journal
1	Bohee Yang, Wongyu Hong, Sunghyup Han, Jiwon Byeon, Heejin Song, Seunggyun In, Kwangsung Choi, Jeonghyun Shin. Skin Granulomas associated with Common Variable Immunodeficiency. Journal of Korean Society of Dermatology. 2011;49(7):601-605
2	Heejin Song, Sunghyup Han, Jiwon Byeon, Wongyu Hong, Hyunsook Lee, Jeonghyun Shin, Kwangsung Choi. Sodium Tetradecyl Sulfate 3 Cases of Mucosal Cyst treated with Sclerotherapy. Journal of Korean Society of Dermatology. 2008;46(9):1249-1252
3	Sunghyup Han, Heejin Song, Wongyu Hong, Hyunsook Lee, Jeonghyun Shin, Kwangsung Choi. A Case of Sister Mary Joseph node. Journal of Korean Society of Dermatology. 2008;46(8):1103-1107
4	Heejin Song, Wongyu Hong, Hyunsook Lee, Jeonghyun Shin, Sunyoung Moon, Kwangsung Choi. A Case of Pregnant Woman Tsutsugamushi Disease treated with Azithromycin. Journal of Korean Society of Dermatology. 2008;46(6):859-861
5	Wongyu Hong, Jeonghyun Shin, Kwangsung Choi. Effect of Topical Treatment with Anthralin in Patients with Refractory Alopecia Areata having a Wide Range of Hair Loss. Journal of Korean Society of Dermatology. 2008;46(5):641-647
6	Heejin Song, Sunghyup Han, Wongyu Hong, Hyunsook Lee, Kwangsung Choi, Jeonghyun Shin. A Case of Rheumatic Neutrophil Dermatitis. Journal of Korean Society of Dermatology. 2008;46(4):514-516
7	Wongyu Hong, Jeonghyun Shin, Kwangsung Choi. Clinical Treatment Effect of Germinated Brown Rice Phellinus linteus in Atopic Dermatitis. Korea Journal of Herbology. 2008;23(1):103~108
8	Heejin Song, Wongyu Hong, Hyunsook Lee, Kwangsung Choi, Jeonghyun Shin. A Case of Macular Amyloidosis Presented as Depressed Patches on the Face. Journal of Korean Society of Dermatology. 2008;46(2):285-288
9	Hyunsook Lee, Sunghyup Han, Heejin Song, Wongyu Hong, Jeonghyun Shin, Kwangsung Choi. A Case of Lichenoid Drug Eruption by Allopurinol. Journal of Korean Society of Dermatology. 2008;46(1);130-133
10	Wongyu Hong, Heejin Song, Hyunsook Lee, Jongrok Lee, Jeonghyun Shin, Kwangsung Choi. A Case of Cowen Syndrome. Journal of Korean Society of Dermatology. 2007;45(8);829-831

11	Hyeyoung Lee, Wongyu Hong, Jeonghyun Shin, Juyoung Noh, Jongrok Lee. A Case of Umbilical Omphalomesenteric Duct Polyp. Journal of Korean Society of Dermatology. 2006;44(11);1342-1344
12	Hyunsook Lee, Wongyu Hong, Jongrok Lee, Jeonghyun Shin, Kwangsung Choi, Yuchan Kim. A Case of Acrosyringial Nevus. Journal of Korean Society of Dermatology. 2006;44(6);751-753
13	Wongyu Hong, Hyunsook Lee, Jongrok Lee, Kwangsung Choi, Jeonghyun Shin, Yuchan Kim. 2 Cases of Pilomatricoma with Bullous Appearance. Journal of Korean Society of Dermatology. 2006;44(3);330-333
14	Hyunsook Lee, Wongyu Hong, Seunggyun In, Jongrok Lee, Jeonghyun Shin, Kwangsung Choi. A Case of Dermatomyositis Associated with Scarring Alopecic Patches. Journal of Korean Society of Dermatology. 2006;44(2);250-252
15	Wongyu Hong, Jeonghyun Shin, Kwangsung Choi. Effect of Anthralin Immunotherapy in Patients with Alopecia Areata having a Wide Range of Hair Loss. Journal of Korean Society of Dermatology. 2009;42(9);1130-1137
16	Heejin Song, Wongyu Hong, Sunghyup Han, Jiwon Byeon, Hyunsook Lee, Kwangsung Choi, Jeonghyun Shin. Acral Angioosteoma Cutis. American Journal of Dermatopathology. 2010;32(5):477-478
17	Heejin Song, Sunghyup Han, Wongyu Hong, Hyunsook Lee, Jeonghyun Shin, Kwangsung Choi. Paraneoplastic bullous pemphigoid: Clinical disease activity correlated with enzyme-linked immunosorbent assay index for the NC16A domain of BP180. Journal of Dermatology. 2009;36:66-68
18	Jiwon Byeon, Sunghyup Han, Heejin Song, Wongyu Hong, Hyunsook Lee, Jeonghyun Shin, Kwangsung Choi. A case of supraumbilical skin rash after chemoembolization for hepatocellular carcinoma. Journal of the European Academy of Dermatology and Venereology. 2009;23(12):1463-1459
19	Wongyu Hong, Heejin Song, Hyunsook Lee, Jeonghyun Shin, Kwangsung Choi. Hobnail haemangioma associated with a secondary sexual characteristic. Journal of the European Academy of Dermatology and Venereology. 2009;23:465-466
20	Heejin Song, Wongyu Hong, Hyunsook Lee, Kwangsung Choi, Jeonghyun Shin. Herpes zoster complicated by delayed intracranial haemorrhage. Clinical and Experimental Dermatology. 2009;34:518-540
21	Sunghyup Han, Heejin Song, Wongyu Hong, Hyunsook Lee, Kwangsung Choi, Jeonghyun Shin. Rhabdomyomatous mesenchymal hamartoma of the vagina. Pediatric Dermatology. 2009;26(6):753-755

22	Sunghyup Han, Heejin Song, Wongyu Hong, Hyunsook Lee, Kwangsung Choi, Jeonghyun Shin. A case of adult blaschkitis with features of interface dermatitis. British Journal of Dermatology. 2008;159:231–266
23	Heejin Song, Wongyu Hong, Hyunsook Lee, Jeonghyun Shin, Kwangsung Choi. Intramuscular lipoma of the sternocleidomastoid muscle. J Eur Acad Dermatol Venereol. 2008;22:363–404
24	Hyunsook Lee, Heejin Song, Wongyu Hong, Jeonghyun Shin, Kwangsung Choi. Pseudoxanthoma elasticum-like papillary dermal elastolysis with solar elastosis. J Eur Acad Dermatol Venereol. 2008;22:363–404
25	Shingu Park, Uicheol Lee, Wongyu Hong, Heejin Song, Jeonghyun Shin. A Case of Occupational Allergic Contact Dermatitis due to PVC Hose. Journal of Occupational Health. 2008;50:197-200
26	Jeonghyun Shin, Wongyu Hong, Heejin Song, Kwangsung Choi, Yuchan Kim. Atypical Acute Graft-Versus-Host Disease. American journal of dermatopathology. 2007;29;576-577
27	Byun JW, Hong WK, Han SH, Song HJ, Lee HS, Choi GS, Shin JH. Red scrotum syndrome: successful treatment with oral doxycycline. International Journal of Dermatology. 2012;51(3):362-363

■ Quality Assurance

No.	Journal
1	Sentinel Lymph Node Biopsy and Staging of Melanoma Using Lymphoscintigraphy and Gamma-probe
2	Preference of Near-erythemogenic Narrow-band UVB Phototherapy in Psoriasis and Change of Dendritic Cells and Chemokines
3	Effectiveness of Amniotic Membrane Patch in the Treatment of Chronic Ulcers
4	Effects of Keratinocyte Growth Factor (KGF), Epidermal Growth Factor (EGF), and Extracellular Calcium on the Growth of Cultured Psoriatic Keratinocytes
5	Photodynamic Therapy of Actinic Keratoses Using 637nm Dye Laser and Variable Lights
6	A Clinical Analysis of the Risk Factors of Varicose Veins in Korean
7	A Case of Churg-Strauss Syndrome Associated with Small Bowel Perforation following High Dose Systemic Steroid Intravenous Injection
8	A Case of Multicentric Reticulohistiocytosis Misdiagnosed As Rheumatoid Arthritis
9	A Case of Pigmented Clear Cell Acanthoma
10	A Case of SAPHO Syndrome in a Palmoplantar Pustulosis Patient
11	A Case of Xanthoma Disseminatum with Diabetes Insipidus
12	A Case of Chilblain Lupus Erythematosus Associated with Antibodies to SSA/Ro
13	A Case of Primary Mucinous Carcinoma of the Skin
14	A Case of ALK-negative Systemic Anaplastic Large Cell Lymphoma
15	CD4-/CD56+/CD123+ Hematodermic neoplasm showing early liver metastasis